

A disc-shaped tool [[10]] includes a plurality of virtual regions formed such that it is surrounded by two radius lines extending from a rotation center of a disc-shaped base metal [[11]] and two concentric circles on the base metal disposed around the rotation center. A central angle formed by the two radius lines is equal to or less than  $90^\circ$ , and the number of the virtual regions is 4 to 24. The concentric circle located in a center of an interval of the two concentric circles forming the virtual region is in a range of  $0.6r$  to  $0.8r$  with respect to the rotation center of the base metal when a maximum gullet bottom radius of the base metal is  $r$ . An overlapping of the virtual regions continuously adjoining each other is in a range of  $0^\circ$  to  $12^\circ$ . A minimum neighborhood distance between the adjoining slits is equal to or more than  $0.05r$ . A ratio of a length of an arc of the central concentric circle in each virtual region with respect to the interval of the two concentric circles in the virtual region is 3 to 6.